

Dear Sir,

**Tracker No: T58092**

**Your Ref: Asset No. 7891/7753B**

**Pump Ref: KSB Horizontal Multi-Stage Bareshaft**

This unit was collected from site on 14/05/07 and received on a quick turnaround.

**Condition Report**



**As Received**



**Old Endcover NDE**



**New Endcover NDE**

Scope of work will be to overhaul pump to specified standard and replace endcover with free issued one from our stock holding

We confirm that the above unit has been stripped, cleaned, examined and the following found.

The pump internals were in a general worn condition as can be seen from the measurements taken. We will salvage the major items and renew the wearing items which most effect pump performance. The impellers are generally sound but with worn neck rings. Bodies are generally good but with worn bush's.

The balance valve and seat are scored across the main face and will need replacing



**Impeller General condition**



**Neck Ring Wear**



**Sleeve's General condition**



**Shaft General condition**



**Diffuser General condition**



**Middle Body Gen condition**



**Balance Valve and Seat**



**DE Endcover wash at Body Spigot**



**Intermediary Bush wear**



**Bearings**

The DE endcover has lost (by wash) part of the body spigot, this will be machined away and a ring inserted. All intermediary bush's are worn undersize and need replacing.

Measurements taken at dismantling

	Actual	Specified
Shaft Trueness (worn and damaged)	0.001	0.001"
Rotating Element Trueness	Not Taken	0.003
1 <sup>st</sup> stage Suction Case Eye Wear Ring Dia	3.940"	
1 <sup>st</sup> stage Suction Impeller Eye Wear Ring Dia	3.927"	
Clearance	0.013"	0.016"
2nd stage Suction Case Eye Wear Ring Dia	3.949"	
2nd stage Suction Impeller Eye Wear Ring Dia	3.922"	
Clearance	0.027"	0.016"
3rd stage Suction Case Eye Wear Ring Dia	3.949"	
3rd stage Suction Impeller Eye Wear Ring Dia	3.922"	
Clearance	0.027"	0.016"
No of Vanes on Impeller	7	
No of Balance Holes on Impeller	0	
Diameter Of Impeller 1 <sup>st</sup> 2 <sup>nd</sup> and 3 <sup>rd</sup> Stage	185mm	185mm
4th stage Suction Case Eye Wear Ring Dia	3.942"	
4th stage Suction Impeller Eye Wear Ring Dia	3.922"	
Clearance	0.020"	0.016"
5th stage Suction Case Eye Wear Ring Dia	3.935"	
5th stage Suction Impeller Eye Wear Ring Dia	3.922"	
Clearance	0.013"	0.016"
6th stage Suction Case Eye Wear Ring Dia	3.941"	
6th stage Suction Impeller Eye Wear Ring Dia	3.922"	
Clearance	0.019"	0.016"
No of Vanes on Impeller	7	
No of Balance Holes on Impeller	0	
Diameter Of Impeller 4th 5th and 6th Stage	185mm	175mm
1 <sup>st</sup> stage Impeller Hub Dia	1.898"	
1 <sup>st</sup> stage Interstage Bush Dia	1.880"	
Clearance	0.018"	0.012"
2nd stage Impeller Hub Dia	1.898"	
2nd stage Interstage Bush Dia	1.878"	
Clearance	0.020"	0.012"
3rd stage Impeller Hub Dia	1.904"	
3rd stage Interstage Bush Dia	1.880"	
Clearance	0.024"	0.012"
4th stage Impeller Hub Dia	1.900"	
4th stage Interstage Bush Dia	1.878"	

Clearance	0.022"	0.012"
5th stage Impeller Hub Dia	1.904"	
5th stage Interstage Bush Dia	1.888"	
Clearance	0.018"	0.012"
6th stage Impeller Hub Dia	1.902"	
6th stage Interstage Bush Dia	1.882"	
Clearance	0.020"	0.012"
Balance Valve Bush Bore Dia	1.888"	
Balance valve Dia	1.864"	
Clearance	0.024"	0.016"
Neck Bush Bore Dia C.E.		
Sleeve Dia C.E.		
Clearance		
Neck Bush Bore Dia T.E.		
Sleeve Dia T.E.		
Clearance		
Safety Bush Bore Dia C.E.		
Sleeve/Shaft Location Dia C.E.		
Clearance		
Safety Bush Bore Dia T.E.		
Sleeve/Shaft Location Dia T.E.		
Clearance		
Shaft Radial Bearing Location Dia C.E.	Okay	K6
Shaft Radial Bearing Location Dia T.E.	Okay	K6
Bearing Housing Location Dia C.E.	Oversize Bush back to	J6
Bearing Housing Location Dia T.E.	Okay	J6
Stage Spigot Clearances		0.003"
Compression on Stage Gaskets	N/A	

We propose to manufacture all new casing wear rings and lightly skim the impeller areas to obtain specified clearance. Likewise we propose to make all new shaft bush's and lightly skim the bodies to obtain specified clearance. The existing wear rings in the bodies will have to be machined out to facilitate new.

The endcover spigot will have a new ring inserted.

The damaged old endcover will be replaced with new

All tie rods will be cleaned up and the threads chased out.

All housings will be lightly grit blasted to remove flaking scale.

To repair this unit we propose to take the following action:-

PSRG Supply & Fit

- 1 x Set Gaskets - Bodies and Gland Seal Housings
- 2 x Sets Gland Packing
- 6 x CI Wear Rings to be machined
- 6 x CI Bush Rings to be machined
- 1 x Endcover Ring
- 6 x Intermediary Bush Rings
- 1 x Bearing Housing Bush Ring to achieve tolerance specified
- 2 x Rubber Throwers

<b>Fit Free Issue</b>	<b>2 x Gland packing Sleeve 1 x R/H- 1 x L/H</b>
<b>Customer</b>	<b>1 x Balancing Disc</b>
	<b>1 x Balancing Seat</b>
	<b>3 x Lip Seals 30 42 7</b>
<b>Supplied Already</b>	<b>2 x Bearings to include taper sleeve, locknut and lockwasher.</b>

Labour	Strip
	Clean
	Inspection and Report
	Machining
	Assembly
	Performance Test
	Spray Painting
	<b>Total</b>

Transport and Packaging	<b>Total</b>
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Spare Parts	1 x Complete Set Gaskets
	2 x Sets Gland Packing
	6 x CI Wear Rings to be machined
	6 x CI Bush's to be machined
	1 x CI Endcover Ring
	1 x CI Bearing Housing Ring
	1 x Consumables
	<b>Total</b>

**Spares Total (not free issue)**

**Sub Total spares and labour**

**Total for job**

The unit will be reassembled and subjected to a performance test run, prior to being sprayed. Test Certification will be returned in accordance with the contract.

Anticipated availability will be 25th May 2007.

Goods supplied as our standard terms and conditions. Terms 30 days.

We trust our quotation meets your approval.

We regret that any pump you choose not to repair or has been deemed beyond economical repair, will be subject to an inspection charge of £ **NET**. This charge will be waived if a new unit is purchased from ourselves.

We offer a full installation and commissioning service on this type of pump. Whether it's a simple like for like swap or a brand new installation involving, mechanical, electrical and civil work. PSRG can offer - [The complete service for industrial pumps!](#)

Please visit our website at [www.pumpgroup.co.uk](http://www.pumpgroup.co.uk) for up to date information on our company and [www.surpluspumps.co.uk](http://www.surpluspumps.co.uk) for information on our current range of surplus pumps.

Yours faithfully,

Jeff Milner  
**Quotation Department - Manchester Office**

Pump Supply & Repair Group Ltd  
 Incorporating :  
 Pump Supply & Repair Co. and  
 Pump Repairs Manchester Ltd  
 Registered Number: **4664897**